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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,356	08/24/2001	Francis Edward Fisher	4136-212	3461

7590 08/26/2005

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EXAMINER

LEO, LEONARD R

ART UNIT PAPER NUMBER

3753

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,356

Applicant(s)

FISHER ET AL.

Examiner

Leonard R. Leo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-10 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 3-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

In response to the Board of Interferences and Appeals decision mailed on May 26, 2005, the following action on the merits of the claims is as follows.

Claims 1 and 3-10 are pending.

Pursuant to the affirmance by the BPAI, the merits of claims 1 and 3-8 will not be considered and should be cancelled in any further correspondence by applicant. Furthermore, claim 9 should be rewritten in independent form.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi or Pavlovic in view of Pei et al.

Takahashi or Pavlovic discloses all the claimed limitations except mechanically fixing by swaging.

Pei et al discloses a heat sink body comprising a folded aluminum sheet 10 having a plurality of mounting lands 144 and a plurality of fins 12, wherein the lands are mounted to element 22 by swaging for the purpose of achieving a strong joint.

Since Takahashi or Pavlovic and Pei et al are both from the same field of endeavor and/or analogous art, the purpose disclosed by Pei et al would have been recognized in the pertinent art of Takahashi or Pavlovic.

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It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Takahashi or Pavlovic lands swaged to the elements for the purpose of achieving a strong joint as recognized by Pei et al. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a land projection and element socket, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

Response to Arguments

The Board of Interferences and Appeal affirmed the anticipatory rejections in view of Takahashi or Pavlovic. Dependent claims 6-7 were stated as standing or falling with the anticipated claims. However, it is believed no decision was made with respect to the obviousness rejection of claims 9-10 in view of Takahashi or Pavlovic in view of Pei et al. The secondary references of Griffis, Gottbreht et al (US 4,038,678), Ngo et al (US 4,646,203), Horton (US 4,720,771) and Jordan et al (US 4,847,449) were not considered.

As applied to the arguments with respect to Pei et al in the Appeal Brief filed on February 9, 2004, applicants' arguments with respect to the secondary reference of Pei et al are not persuasive. The Examiner acknowledges applicants' concerns in the physical incorporation of Pei et al in the devices of Takahashi or Pavlovic. However, one of ordinary skill in the art would recognize the semiconductors 1 of Takahashi and components 18 of Pavlovic have many well known alternative forms. As evidenced by Griffis (US 4,387,413)(column 1, lines 8-14 and column 2, lines 28-38),

"A well-known device package for power transistors and integrated circuits is the TO-220 package."

“Referring to FIG. 1, a TO-220 package transistor 10 is shown mounted on a printed circuit board 24 with a supplementary heat sink 20. The transistor semiconductor element is enclosed in an epoxy body 12. The element is bonded to a metallic slab which extends upward from the body 12 to form a heat sink tab 14. Lead terminals 17, 18 and 19 are connected to the semiconductor element within the body 12 and extend downward from the body into holes in the printed circuit board 24. The transistor 10 is fastened to the supplemental heat sink 20 by a screw 16.”

Furthermore, Gottbreht et al (US 4,038,678), Ngo et al (US 4,646,203), Horton (US 4,720,771) and Jordan et al (US 4,847,449) disclose mechanically fixing a heat sink to a solderable electrical component via a screw or rivet is well known in the art, where the rivet is typically swaged.

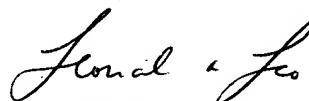
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard R. Leo whose telephone number is (571) 272-4916. The examiner can normally be reached on Monday thru Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (571) 272-4930. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LEONARD R. LEO
PRIMARY EXAMINER
ART UNIT 3753

August 23, 2005